

Scenario (2)

X-Rec
Anna
(Normal)

Auto-Rec
Jackson
(Deaf)

Auto-Rec
Affect Nur
b/b B/-

X-Rec
Affect Nur
a/a A/-
a/Y A/Y

○
A/- B/-

⊘
A/Y b/b

★ (2.1) A/A B/B x A/Y b/b

	(A ⁺)	(Y ⁺)
(A ⁺)	A/A B/B	A/Y B/B

P(Deaf) = 0

★ Most likely genotype
A/- B/B A/Y b/b

Anna
married
into Jackson's
family
∴ most likely
homo normal
(not carrier)

(2.2) A/A B/b x A/Y b/b

	(A ⁺)	(Y ⁺)
(A ⁺)	A/A B/b	A/Y B/b
(A ⁺)	[A/A b/b] deaf	[A/Y b/b] deaf

P(Deaf in all) = 2/4

P(Deaf in ♀) = 1/2

P(Deaf in ♂) = 1/2

★ (2.3) A/a B/B x A/Y b/b

	(A ⁺)	(Y ⁺)
(A ⁺)	A/A B/B	A/Y B/B
(a ⁻)	A/a B/B	[a/Y B/B]

P(Deaf in all) = 1/4

P(Deaf in ♀) = 0

P(Deaf in ♂) = 1/2

(2.4) A/a B/b x A/Y b/b

	(A ⁺)	(Y ⁺)
(A ⁺)	A/A B/b	A/Y B/b
(A ⁺)	[A/A b/b] deaf	[A/Y b/b] deaf
(a ⁻)	A/a B/b	[a/Y B/b]
(a ⁻)	[A/a b/b] deaf	[a/Y b/b] deaf

P(Deaf in all) = 3/8

P(Deaf in ♀) = 2/4

P(Deaf in ♂) = 3/4